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Hollinger Corp.
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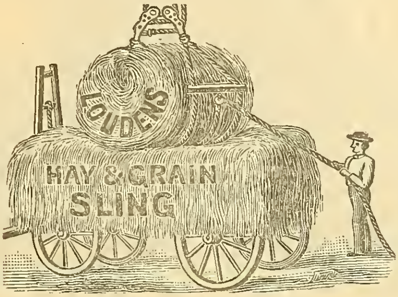
LOUDEN'S

elf-Compressing Center Trip Hay and Grain Sling.



THE BEST IMPLEMENT EVER INVENTED

For handling all kinds of Hay, Straw, Sorghum, Fodder, or Grain, either bound or *loose*. In cleans the rack in from two to four drafts, according to the power of the elevator used, and leaves no littering whatever. It is adapted for use in either field or barn, and will handle the crop in almost any shape it can be brought to it, whether on a wagon or a hay sled; or when drawn up with a pole, a rope, or a sweep rake.

"It is as far ahead of the Horse Fork as the Horse Fork is ahead of hand pitching."

"It is just the thing for stacking grain loose."

LOUDEN MACHINERY CO.,

SOLE MANUFACTURERS,

Fairfield, Iowa,

U. S. A.

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FAIRFIELD TRIBUNE PRINT.

The Wagon Sling Taking a Load.

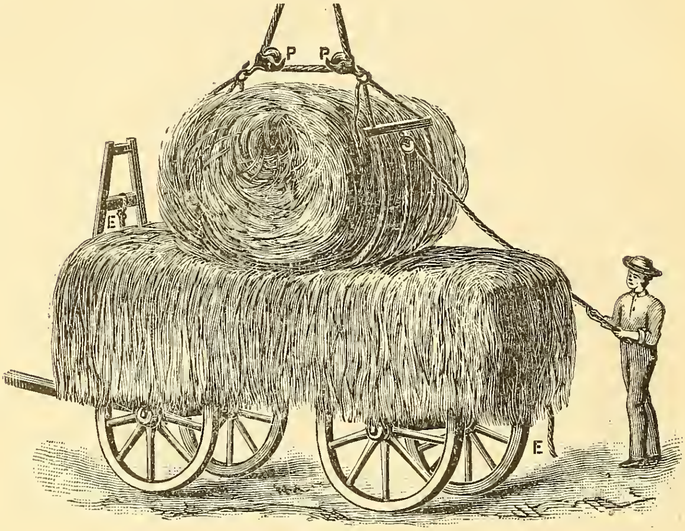

Fig. 108.

This cut represents half a wagon load of hay or loose grain rolled up with one of our Wagon Slings ready to be elevated

The Slings are taken out to the field and spread on the rack and the hay is loaded upon them. The cut shows the extension ropes E E of the lower sling, one of which is hanging out behind, and the other secured to the standards in front. These ropes are to draw the ends of the Sling from under the hay and facilitate the attachment of the sling pulleys P P. (For Right Angle or Triple or Quadruple Draft Pulleys, see page 6). The Slings are made adjustable, as shown on page 4, to suit racks of different lengths, and are each provided with a short trip cord having a ring in the end into which the main trip cord is snapped as each sling load is taken. Any kind of hay rack can be used.

There is no other device so well adapted to handling loose grain, and we call the attention of those who are looking for the best means of taking care of their crops with the least expense, to the fact that our Slings will handle their grain in any shape they may wish to handle it, either *bound or unbound*, in the field, stack yard or barn. In unloading bound grain in the barn, the Sling load can be lowered before discharging it. For which see circulars of our New Carriers.

Fig 109 shows the manner in which the Sling discharges its load. When tripped it separates into two parts, letting the hay drop out between them, perfectly clear, and without tilting it on edge as all side trip slings invariably do. The hay being first rolled up, as shown on this page, will *unroll* when discharged, and spread out in the mow or on the stack as wide as the load is long, and in *exactly the same shape* it lay on the load.

The Wagon Sling Discharging a Load.

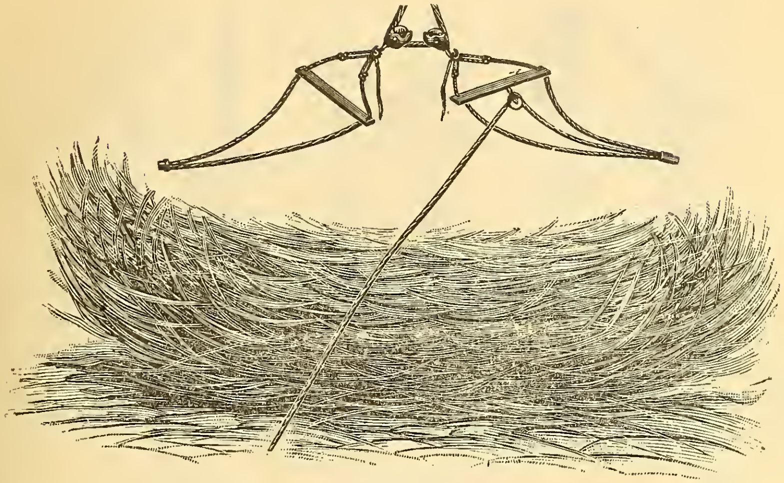

FIG. 109.

The hay or grain can not be delivered in better shape for re-handling. Little or no space is required below the sling load to clear the Sling, and the ropes never get caught under the hay as they do with side trip slings. In stacking very little labor is required to build the stack, because the hay is dropped in a nice, broad flake, which needs only a little smoothing to make a stack that will settle straight and turn water perfectly.

Hear what our customers say :

Your Single Pole Stacker which I have used the past two seasons. and your Slings the last season, does all you claim for them. Your Sling will discount any fork that was ever manufactured. You can reckon on your load every time —no chance work about it. M. CULLEN, Avoca, Minn.

The Slings I purchased of you last season could not be better. I can unload a big load of prairie grass in two pulls, and a load of crab grass or millet in three pulls. I am well pleased with the outfit.
JACOB SCHOLL, Independence, Kansas.

The Hay Slings you sent me last year worked splendidly. I rigged one wide for both ground and wagon use, and with triple draft frequently elevated half a ton at a time. We put up three 25 ton stacks and about the same amount in the barn. ZIMRI DIXON, Crestline, Cherokee Co., Kansas.

[NOTE—Mr. Dixon used our Parallel Sling Pulleys as a Rope Carrier in his barn.

Please find enclosed express order in payment of your bill. I have given the Slings a fair trial and find them all right. I can take a wagon load off at three drafts with ease. A. McKELLAN, Heron Lake, Minn.

Having used several different kinds of Hay Tools I feel justified in saying that yours are the best I ever used in barn or field. They are worth double the money of any other. JOHN WILKES, Rives, Brule Co., South Dakota.

Standard Wagon Sling.

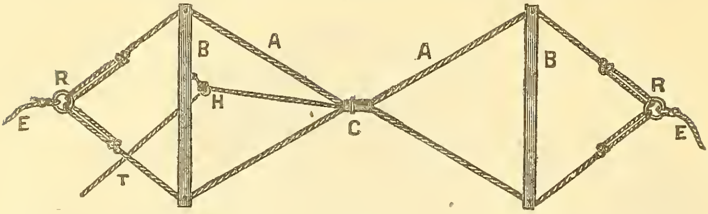

FIG. 111.

Our Standard Wagon Sling consists of the main ropes A A, cross bars B B, (which are made 3 or 4 feet long, as desired) Trip Coupling C, and Trip Cord T, which passes over the small pulley H, and is provided with a ring, (shown in FIG. 187 below) to connect to main trip cord. Also the attaching rings R R, and extension ropes E E. It can be readily adjusted in length to suit a load from 8 to 16 or 18 feet long. Longer sizes made to order and extra cross bars put on when desired at an extra cost of 50 cents per pair.

California Wagon Sling.

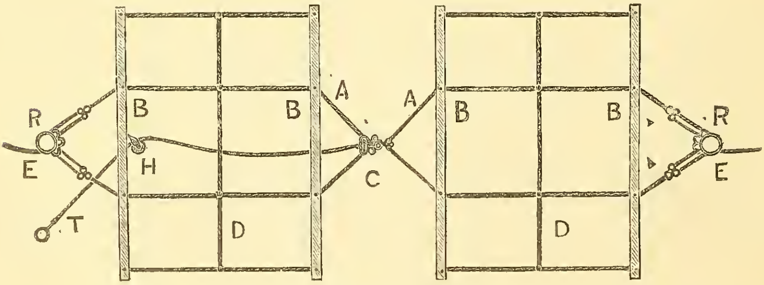

FIG. 187.

The California Wagon Sling was designed for handling very short hay or headed grain, and was so named on account of the great demand for this kind of Sling from the Golden State. It is the same as our Standard Sling with the addition of two extra cross bars, all being 6 feet long, and has four extra side ropes and two cross ropes D D. It is adjustable and can be made to suit any size of rack or header wagon. It is just the thing for handling all kinds of short stuff.

Another Testimonial.

I have stacked my oats loose for several years and have found it cheaper and more satisfactory even with binding twine at nominal prices. Grain ought to be cut with a harvester, laid off in windrows, and with half a day's sun it is ready to stack. Then load on to a wagon and stack with your Slings. Your Slings are much better than a "Ricker," which gathers up trash, shells out the grain, and can only be used for stacking in the field.

FRANK F. LOOMIS. Octava, Neb.

The Ground Sling.

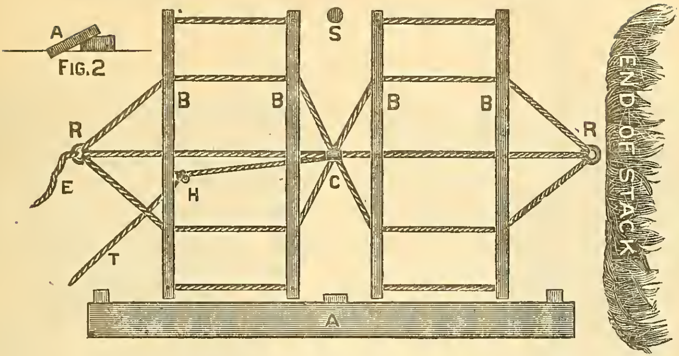

Fig. 110.

There is nothing better than this Sling to handle hay, straw or loose grain when drawn up with a pole, rope or sweep rake. It drops the hay on the stack in the best possible shape for building. It is just the thing to handle straw from the threshing machine; and by rigging up a small two-pole stacker, (see stacker circular) and using a sweep rake, it makes one of the best Loaders in market. The outfit can be easily and quickly moved from place to place, and a much better load can be built than by loaders which hitch to the hind end of the wagon.

The standard size is 12 feet between the rings R R with cross bars 8 feet long. Special sizes made to order.

SLING FITTINGS.

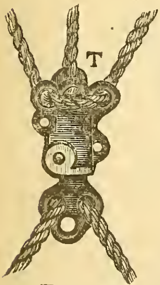

Fig. 188.

In order to bring our Slings down to the lowest possible cost we will, when desired, furnish the iron fittings and directions for putting on the ropes and cross bars. This can be easily done by almost any person. Small poles about 2 inches in diameter will answer as well for cross bars as sawed pieces, and the freight on the cross bars and ropes will be saved.

The following is a bill of the different sizes and lengths of ropes used on our different Slings:

Standard Wagon Sling—42 feet of half inch, 10 feet three-eighths and 12 feet of quarter inch rope.

California Wagon Sling—42 feet of half inch, 40 feet of three-eighths and 12 feet of quarter inch rope.

Ground Sling—52 of half inch and 18 feet of three-eighths inch rope.

Fig. 188 represents our Sling Coupling with trip cord T and ropes for Wagon Slings attached. With the Ground Sling ropes are also attached to the center eyes. The working parts are completely covered up, so dirt or trash can not work in and interfere with them. It can not be tripped by drawing the Sling endwise under the hay and is so constructed that it trips as easily when loaded as unloaded—a very important point in a Sling Coupling.

Improved Sling Pulleys.

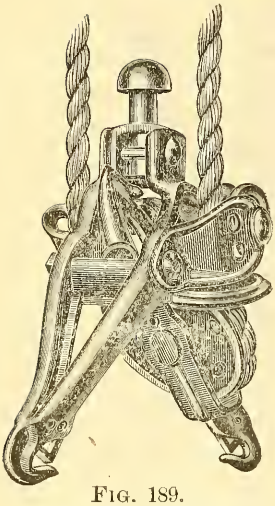

Fig. 189.

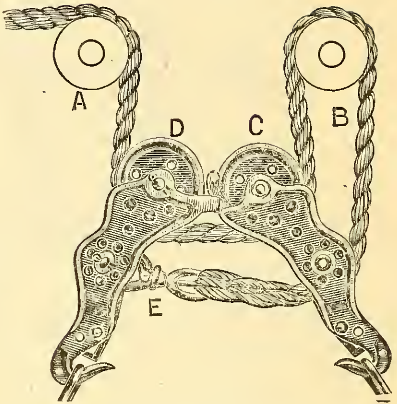

Fig. 190.

Fig. 189 represents our Right Angle Sling Pulleys as fitted to work with a Dead Lock Hay Carrier. They are hooked to the end rings of the Sling—one at each end of the load—and as the sling load is rolled up, the pulleys are drawn together and the point of the single pulley runs into the open space of the double one and is locked fast. They are then elevated together until the registering head, projecting up between the ropes, engages the carrier. All that is necessary to make these pulleys work with any kind of dead lock carrier is to put in a registering head to suit the carrier. We have fitted these pulleys to work double, triple or quadruple draft with our Improved Carriers, but with dead lock carriers they can be used only double draft.

Fig. 190 represents our Improved Parallel Pulleys in connection with the rope wheels A and B of a hay carrier or the pulleys of whatever kind of elevator is used. The cut shows the pulleys rigged triple draft,—the end of the rope passing over the pulley A, leading to the horse. By stopping the end E of the rope at a point near B they will be rigged double draft, or by passing it on through the lower part of pulley D, and attaching it to a point near A, they will be rigged quadruple draft.

The hooks of all these pulleys are turned *downward* for convenience in attaching the slings, and are provided with little stops to keep the slings from accidentally unhooking.

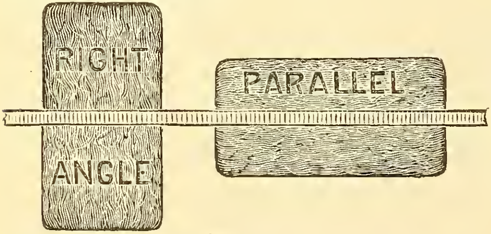

Fig. 191.

The difference between the Right Angle and Parallel Sling Pulleys is more plainly shown by Fig. 191. The Right Angle Pulleys lift and carry their load at *right angles* to the track of the hay carrier, while the Parallel Pulleys work parallel with it. However, a quarter twist of the ropes will make either kind work the same as the other. The Right Angle Pulleys are generally prefered for use with a hay carrier, but the Parallel are the best for a stacker.

By locating the pulley A (Fig. 190) over the load and the pulley B over the mow, the sling loads can be run into the mow with the Parallel Pulleys in places where it is not convenient to use a carrier.

Using Hay Slings.

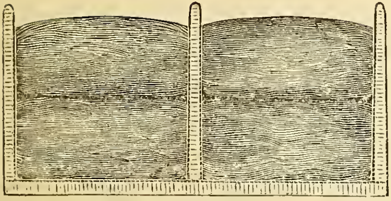

FIG. 192.

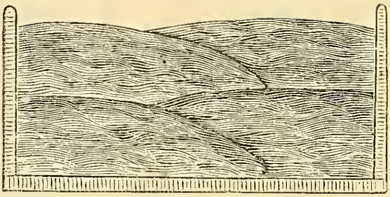

FIG. 193.

Like all other machinery, to secure the best results from the Hay Sling, everything used in connection with it should be proportioned to suit its requirements. The length and size of load, the strength of the elevator, and the space through which the Sling has to pass in barns, has all to be considered and adjusted to suit each other.

If the rack is 18 to 20 feet long, the space above beams 14 to 15 feet, and the power of the elevator sufficient to take the load at two drafts. it will work O K ; but it would not do to attempt to take a load of this length at four drafts with the Slings spread the entire length of the load ; for, unless it was as high in proportion, there would not be enough hay in each sling load to properly fill the Sling. A load of this length, when more than two Slings are used, should have a division across the center, as shown in FIG. 192, sufficient to separate the hay, and four Slings should be used, as shown in cut. This should also be done with a long rack when the space through which the sling load has to pass is less than 9 feet.

Instead of the division in the rack the Slings can be shortened up and laid as shown in FIG. 193. This is the best way in filling up the peak of the barn, and three Slings instead of four can be used. Of course the Sling will work to the best advantage where there is plenty of room and elevator power, and large loads are taken ; but it can also be made to work well in a limited space and with less elevator power by shortening up the length of the sling loads.

Racks 14 feet long, or not to exceed 16 feet, are best adapted to the Sling, and Triple or Quadruple draft is better than double, unless medium sized sling loads are taken. The extra expense of Triple or Quadruple Draft outfits are generally made up by the lesser number of Slings required. Seven-eighths or inch rope should be used with double draft, three-quarters with triple, and five-eighths rope with quadruple draft. Heavier sizes of rope will not work as well. For small barns or for building stacks we would advise the use of a fork outfit.

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"Cleaning the Rack."

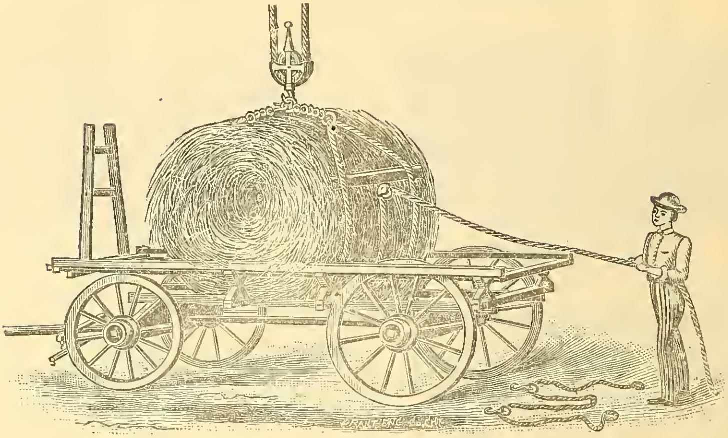

Fig. 194.

The Horse Fork was never invented that will "clean up the rack" to good advantage, especially if the hay should be a little short or dry; and should it be very dry or short the fork often becomes a positive nuisance, as litterings frequently knee deep on the barn floor will fully attest. To overcome this difficulty, and to enable farmers to become acquainted with the merits of our Slings who feel that they can not afford for the present to throw away their fork outfits and replace it with a Sling outfit, we have devised a plan whereby the top of the load can be taken off with the fork as usual, and the bottom cleaned up with one of our Slings as shown in Fig. 194.

The Sling is laid upon the rack and the hay is built upon it. When the top of the load is taken off unhook the fork from its pulley, or the rope to which it is attached, and hook the looped ends of the binding rope (laying behind the wagon) in its place. Now hook one of the binding pulleys on the rope to one end of the Sling and the other one to the other end. Start up the horse until the ends of the Sling are drawn together and then hook them with the chain coupler. Now back the horse a little, remove the binding rope and pulleys; and hook directly to the coupler as shown in the cut. The Sling load can now be elevated the same as a fork load.

Instead of having to fuss around piling up the hay, having to gather up the litterings on the floor, and make half a dozen drafts to take up three hundred pounds of hay, one draft will do the business and save time, labor and patience. If the rack is long or the space through which the hay passes small, two Slings laid half length may be required, as explained on page 7, but generally one will be sufficient.

For this season only (1889) we make the following *special net cash prices* on cleaning up outfits, viz: Outfit for one wagon, consisting of one Standard Wagon Sling with coupler attached, a set of binding pulleys and binding rope weighing 15 pounds, $4.50; same for two wagons weighing 26 pounds, $7.50; same for three wagons weighing 37 pounds, $10. The outfits for two or three wagons are the same as for one wagon with an additional Sling for each wagon. These outfits can be sent cheaply by either freight or express, and will be forwarded to any address on receipt of price.

Address all orders or inquiries to

LOUDEN MACHINERY CO.,
FAIRFIELD, IOWA.